APPENDIX A

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37. (New) An isolated nucleic acid that encodes a fusion polypeptide, wherein the fusion polypeptide comprises:

a) an α-2,3-sialyltransferase that catalyzes the transfer of a sialic acid, from CMP-Neu5Ac, to an acceptor molecule; and

b) a CMP-Neu5Ac synthetase that catalyzes the formation of CMP-Neu5Ac from Neu5Ac and CTP.

38. (New) The nucleic acid of claim 37, wherein the α-2,3-sialyltransferase and the CMP-Neu5Ac synthetase are joined by a peptide linker.

39. (New) The nucleic acid of claim 37, wherein the nucleic acid further comprises a polynucleotide that encodes a signal sequence which is linked to the fusion polypeptide

40. (New) The nucleic acid of claim 37, wherein the nucleic acid further comprises a polynucleotide that encodes a molecular tag which is linked to the fusion polypeptide.

41. (New) The nucleic acid of claim 37, wherein the α-2,3-sialyltransferase is a bacterial enzyme.

42. (New) The nucleic acid of claim 41, wherein the α-2,3-sialyltransferase is a *Neisseria* enzyme.

43. (New) The nucleic acid of claim 37, wherein the CMP-Neu5Ac synthetase is a *Neisseria* enzyme.

44. (New) An expression vector which comprises the nucleic acid of claim 37.

45. (New) A host cell which comprises the expression vector of claim 45.

46. (New) A method of producing a fusion polypeptide, the method comprising:

a) introducing into a host cell the expression vector of claim 45, under conditions where the host cell is transformed with the expression vector; and

b) culturing the transformed host cell under conditions where the fusion polypeptide is expressed in the transformed host cell.

47. (New) The method of claim 47 further comprising a step of purifying the expressed fusion polypeptide.

48. (New) The method of claim 47 further comprising a step of permeabilizing the host cell expressing the fusion polypeptide.